# ORIGINAL

Before the FEDERAL COMMUNICATIONS COMMISSION Washington, D.C. 20554

JUN 1 9 1992

FEDERAL COMMUNICATIONS COMMISSION OFFICE OF THE SECRETARY

In the Matter of:

Request by Mobile Communications Corporation of America for a Pioneer's Preference for Verified Information Paging Service ET Docket No. 92-100 File No. PP-82

ORIGINAL FILE

#### **OPPOSITION**

MOBILE TELECOMMUNICATION TECHNOLOGIES CORPORATION

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#### **OPPOSITION**

Mobile Telecommunication Technologies Corporation ("Mtel"), by its attorneys, respectfully submits these comments in opposition to the above-captioned Request for a Pioneer's Preference filed by Mobile Communications Corporation of America ("MCCA"). As discussed herein, MCCA's proposed VIP service appears to be patterned after Mtel's Nationwide Wireless Network ("NWN") proposal. As a general principle, the Commission should promptly dismiss pioneer preference requests, such as MCCA's, that duplicate previously disclosed innovations and do not contain any significant new contributions. Accordingly, MCCA's request should be summarily denied.

The comment date regarding MCCA's Request was established in DA 92-712 (released June 4, 1992).

#### I. <u>INTRODUCTION AND SUMMARY</u>

Mtel has long been an innovative and leading provider of messaging services.<sup>2</sup> Last November, Mtel filed a Petition for Rulemaking and Request for Pioneer's Preference for a new Nationwide Wireless Network ("NWN") service.<sup>3</sup> NWN will use innovative enhanced modulation techniques and an innovative advanced dynamic frequency management scheme to provide highly efficient, two-way messaging capabilities for laptop, palmtop, and other portable computing devices.

MCCA's proposed VIP service largely restates Mtel's NWN proposal with some minor variations. In fact, there is only one distinction of any consequence: while NWN will support

Through its SkyTel<sup>TM</sup> and Mtel International subsidiaries, Mtel provides nationwide paging service to more than 180,000 subscribers across the United States and overseas. Mtel's recent accomplishments include the first 2400 bps simulcast messaging technology and providing nationwide one-way wireless electronic mailbox ("e-mail") service to AT&T Safari<sup>TM</sup> and HP95LX computers through the SkyTel<sup>TM</sup> network.

Mobile Telecommunication Technologies Corporation Petition for Rulemaking to Allocate 150 kHz in the 930-931 MHz Band to Establish Rules and Policies for a New Nationwide Wireless Network (NWN) Service, RM-7978, filed November 12, 1991; Mobile Telecommunication Technologies Corporation Request for a Pioneer's Preference Regarding its Petition for Rulemaking to Allocate 150 kHz in the 930-931 MHz Band and to Establish Rules and Policies for a New Nationwide Wireless Network (NWN) Service, PP-37, filed November 12, 1991.

both one-way and two-way transmissions, VIP is limited to one-way service with acknowledgment.

In all other essential respects -- including much of the language used to describe VIP -- MCCA's proposal is a virtual clone of Mtel's. MCCA should not be given any credit for any innovative service concept or technology pioneered by Mtel. Consequently, grant of a pioneer's preference for VIP is not warranted.<sup>5</sup>

#### II. THE PIONEER'S PREFERENCE REQUIREMENTS

To reward innovation, the Commission has adopted rules to "provide preferential treatment in [its] licensing processes for parties developing new communications services and technologies." The Commission has emphasized that the determination of whether to grant a preference is discretionary, and that preferences will not be routinely granted.

The remaining differences, such as the specific modulation technique and the concentration of base stations, are not significant.

Denial of MCCA's request would not preclude it from filing for frequencies in the event that rules permitting an NWN-based system are adopted.

Establishment of Procedures To Provide a Preference to Applicants Proposing an Allocation for New Services, 7 FCC Rcd 1808 (1992) ("Reconsideration Order").

<sup>&</sup>lt;sup>7</sup> 47 C.F.R. § 1.402(a) (1991).

Reconsideration Order, 7 FCC Rcd at 1808.

Petitioners seeking a pioneer's preference must make several showings:

Service description. A petitioner must describe the proposed service, state the frequencies on which the service would operate, provide a plan for implementing the service, and disclose the geographic area for which a preference is sought. 10

Innovation. A petitioner must show that it, or its predecessor-in-interest, is proposing an "innovative proposal that leads to the establishment of a service not currently provided or a substantial enhancement of an existing service." Moreover, a petitioner must demonstrate that it, or a predecessor-in-interest, has developed the new service or technology or has brought the capabilities or possibilities of the service or technology to a more advanced or effective state. 12

The Commission's rules provide that an initial determination on a pioneer's preference request will be made at the time of adoption, if any, of a notice of proposed rulemaking. A final determination will be made when and if a report and order is issued adopting the new rules. 47 C.F.R. § 1.402(b) (1991).

<sup>&</sup>lt;sup>10</sup> 47 C.F.R. § 1.402 (1991).

<sup>11 &</sup>lt;u>Id</u>.

Id.; see also Letter from Thomas P. Stanley to Caressa D. Bennet, dated May 22, 1992, at 1 ("Stanley Letter"). The Stanley Letter further explains that the rules "do not provide for extending a licensing preference for a particular market based upon extending provision of an existing or proposed service or technology developed by someone else to a 'new' market." Id. at 2.

Technical feasibility. A petitioner must submit a technical feasibility showing or an experimental license application, unless an experimental license application concerning the new service or technology previously has been filed. The Commission has stated that "in most cases, a petitioner will find it necessary to conduct an experiment. It also has emphasized that it intends "to analyze technical showings as rigorously as the results of experiments to ensure that a preference applicant's proposed new service or technology is viable and worthy of a preference. "15

<u>Conflicting rules</u>. An applicant must note any conflicting licensing rules and explain how such rules should or should not apply.<sup>16</sup>

<sup>&</sup>lt;sup>13</sup> 47 C.F.R. § 1.402(a) (1991).

Establishment of Procedures To Provide a Preference to Applicants Proposing an Allocation of New Services, 6 FCC Rcd 3488, 3493 (1991) ("Pioneer Preference Order"). Applicants relying upon an experimental authorization must commence the experiment and report at least preliminary results to the Commission by the time it issues a notice of proposed rulemaking regarding the proposed service or technology. 47 C.F.R. § 5.207 (1991).

Reconsideration Order, 7 FCC Rcd at 1809.

<sup>&</sup>lt;sup>16</sup> 47 C.F.R. § 1.402(a) (1991).

## III. MCCA HAS FAILED TO DEMONSTRATE THAT IT MERITS A PIONEER'S PREFERENCE.

#### A. MCCA's VIP Concept Is Not Innovative.

MCCA's VIP concept "calls for nationwide, simulcast, high-volume, high-speed one-way data delivery transmissions with a variety of response or acknowledgment options for the subscriber." MCCA candidly admits that the VIP proposal "has many similarities to Mtel's NWN model," although it also claims that there are significant differences. 18

Mtel respectfully submits that the similarities between VIP and NWN are so extensive as to preclude any claim of innovation on MCCA's part. Indeed, a comparison of key points in the two petitions shows that VIP extends well beyond appropriation; VIP is almost a clone of NWN, both technically and linguistically:

#### 1. Spectrum efficiency and system coverage

Mtel: "NWN is highly efficient, accommodating a base of over 600,000 users in a cost-effective manner within a modest 50 kHz channel. NWN also permits graceful, incremental expansion that will culminate in nationwide seamless coverage comparable to

MCCA Request at 4. VIP assertedly will support autonomous registration and automatic message routing delayed transmission of undeliverable messages, alternative delivery of undeliverable messages, a "soft key" response option, a received and read acknowledgment option, various security features, and, with suitable equipment, multimedia message delivery. Id. at 5.

Comments of MCCA, ET Docket No. 92-100 and File No. RM-7978, filed June 1, 1992, at 10 ("MCCA Comments").

cellular radiotelephone and wide area paging network."19

MCCA:

"VIP will be able to accommodate over 600,000 users cost-effectively, using a single 50 kHz channel, and permits nationwide seamless coverage comparable to cellular telephone service in scope."

#### 2. Use of innovative technology

Mtel:

"Mtel's proposed NWN service incorporates a number of innovations that include a high speed simulcast transmission network and an intelligent advanced dynamic frequency management ("ADFM") plan."21

MCCA:

"MobileComm's VIP service incorporates numerous innovations, including a high-speed simulcast wireless transmission network and an intelligent Dynamic Network Management ("DNM") plan."<sup>22</sup>

#### 3. <u>Description of frequency management plans</u>

Mtel:

"[ADFM], which incorporates substantial forward channel and reverse channel re-use as well as comprehensive scheduling, uses the high speed transmission medium to condense communications and maximize use of the spectrum. ...

Collectively and individually, the innovations represent an advance in the state-of-the-art in simulcasting as well as an advance in mobile data communications generally. NWN heralds a new era in efficient two-way messaging services."23

MCCA:

"The DNM plan relies on sophisticated scheduling and location techniques, simulcast forward channel

Mtel Request for Pioneer's Preference, PP-37, filed November 12, 1991, at iii.

MCCA Request at 2.

Mtel Request at iii.

MCCA Request at 2.

Mtel Request at iii-iv.

transmissions, and substantial reverse channel reuse, all governed by advanced protocols at the network, data link and physical layers, to maximize efficient use of the spectrum. ...

MobileComm's innovations embodied in the VIP system represent a major advance in the state of the art in both simulcasting and in mobile data communications, heralding a new era in efficient, economical one-way messaging services."24

#### 4. Need for high bit rate on forward channel

Mtel:

"Because the forward channel (base to user terminal) portion of the NWN network must carry extensive scheduling information in addition to outbound message traffic, the throughput of the forward channel simulcast transmission network is critical to the success of Mtel's NWN system. Mtel's initial calculations indicated that NWN would require data rates in excess of 4,800 bps, the rate typically regarded as the absolute ceiling for binary FSK simulcast systems."

MCCA:

"A new modulation technique is needed to permit the utilization of data rates in excess of 4,800 bps, which has traditionally been viewed as the maximum bit rate that can be utilized with traditional binary FSK modulation in a simulcast environment, due to destructive summing effects. A much higher bit rate will be needed for the VIP transmission network because of the heavy message and scheduling traffic to be carried on the forward channel of a nationwide messaging system." 26

#### 5. Need for synchronization and computing power

Mtel:

"Through an innovative combination of a number of advanced communications technologies, NWN can meet a substantial demand for digital two-way communications in a modest allocation. Mtel's ability to satisfy this demand is the result of

MCCA Request at 2-3.

Mtel Request at 12.

MCCA Request at 7.

three interrelated factors: precise system synchronization, nationwide operation, and extensive network computing power."27

MCCA:

"The VIP system's efficiency in meeting substantial demand within a relatively narrow band of spectrum requires extremely precise synchronization of the modulated radio signals .... Overall network control will be accomplished through the use of centralized computer facilities."

In short, Mtel completely agrees with MCCA that services patterned after NWN may offer valuable new features to subscribers. It does not agree, however, that MCCA can legitimately claim responsibility for an innovative service concept or technology.

Finally, even if the VIP concept and technology were considered innovative in its own right, there is serious doubt whether MCCA would deserve credit. Its request is vague as to MCCA's exact role in developing the technology, stating only that MCCA has "worked with a major equipment

<sup>27</sup> Mtel Request at 8.

MCCA Request at 9. The two requests also are very similar in describing how mobile units are located, although in this case the language is different:

Mtel: "If a portable unit does not acknowledge a message packet sent in a zone time slot because the user has moved, the packet is retransmitted using a nationwide time slot, a packet to which the user terminal will respond regardless of location." Mtel Request at 16.

MCCA: "[A] critical feature of VIP is that a terminal whose location is unknown can be immediately located, after a failure to respond at its last location, by retransmission of the unacknowledged message nationwide." MCCA Request at 9.

manufacturer to evaluate the suitability of a number of advanced modulation techniques for high-speed data transmission in a simulcast messaging environment." Under the MFJ, of course, MCCA -- as a subsidiary of a Bell Operating Company -- would be forbidden from designing or developing the technology; its participation would be limited to articulating generic performance requirements.<sup>29</sup> Mtel does not believe that this limited role meets the requirements of Section 1.402(a) of the Rules.

#### B. MCCA's VIP Service Has Less Functionality Than NWN.

The close resemblance between VIP and NWN is confirmed by MCCA's own expert, John B. Berry, Jr. Mr. Berry's affidavit, which is appended to MCCA's Comments, contains a chart comparing NWN and VIP. The chart reveals that the services have the same values for most technical characteristics. Moreover, the few differences, such as for bit rate and modulation efficiency, generally show NWN to be superior.

Indeed, Mtel believes it is fair to state that there is really only one distinction of any consequence between VIP and NWN: while NWN will support both one-way and two-way data transmission, VIP will support only one-way transmission with acknowledgment. Thus, not only is VIP essentially a clone of

See United States v. Western Elec. Co., 675 F. Supp. 655 (D.D.C. 1987), aff'd, 894 F.2d 1387 (D.C. Cir. 1990).

NWN, but it is a clone with significantly less functionality.

It certainly does not represent a substantial enhancement of

Mtel's documented innovations.

C. MCCA Has Not Demonstrated That VIP Is Technically Feasible.

MCCA's sole attempt to demonstrate technical feasibility is a statement that "a prominent expert consulted by [MCCA] has advised that 8-level FSK modulation is likely to be a reliable technique for high-speed data transmission in a simulcast system." MCCA fails to provide the expert's analysis, assuming one was prepared, and makes no effort to show the viability of other aspects of the VIP proposal. This perfunctory effort stands in stark contrast to Mtel's detailed demonstration of the feasibility of NWN, and constitutes yet another reason for dismissing MCCA's request.

Petition at 14.

#### IV. CONCLUSION

For the foregoing reasons, Mtel urges the Commission to deny MCCA's request for a pioneer's preference for the proposed VIP service.

Respectfully submitted,

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#### CERTIFICATE OF SERVICE

I hereby certify that on this 19th day of June, 1992, I caused copies of the foregoing "Opposition" to be mailed via first-class postage prepaid mail to the following:

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